L2314 IPS LED Backlit Monitor

User Guide

About This Guide

This guide provides information on setting up the LCD monitor, operating features, and technical specifications.

⚠ WARNING!   Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.

⚠ CAUTION: Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

📝 NOTE: Text set off in this manner provides important supplemental information.

💡 TIP: Tips provide helpful hints or shortcuts.

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1   Product Features

LCD Monitor

Figure 1-1 LCD Monitor

The HP LCD (liquid crystal display) monitor has an active matrix, thin-film transistor (TFT) screen with an LED backlight and the following features:

- Large 58.42 cm (23-inch) diagonal viewable area display with 1920 x 1080 resolution, plus full-screen support for lower resolutions

- Video graphics array (VGA) input signal with cable provided

- Digital visual interface (DVI) digital input signal with cable provided

- High-definition multimedia interface (HDMI) input signal (cable not included)

- Tilt and Slide adjustment for easy viewing from a sitting or standing position, or while moving from one side of the monitor to the other

- Dynamic contrast ratio (DCR)

- Plug and Play capability, if supported by your operating system

- On-screen display (OSD) adjustments for ease of setup and screen optimization (choose English, Simplified Chinese, Traditional Chinese, French, German, Italian, Spanish, Dutch, Japanese, or Brazilian Portuguese)

- Power Saver to reduce energy consumption

- Quick View Settings to optimize the picture based on the different types of content.

    ◦ Text mode (optimizes e-mail and Web surfing)

    ◦ Movie and Game modes (highlights the picture for motion video)

◦ Photo mode (improves images)

◦ Custom mode (allows you to create your own optimized profile)

● High-bandwidth digital content protection (HDCP) on DVI and HDMI inputs

● Software and utilities CD, containing the following:

◦ Drivers

◦ Documents

● Certifications and agency notices for this monitor are available in the *HP LCD Monitors Reference Guide* on the CD included with this monitor

Shipping the Monitor

Keep the original packing box in a storage area. You might need it later if you move or ship the monitor.

To prepare the monitor for shipping:

1. Disconnect the power and video cables from the monitor.

2. Press the button on the front of the pedestal (1) and lift the monitor panel from the base (2).

   Figure 1-2 Removing the Monitor Panel

3. Set the panel on a soft, protected surface.

4. Carefully pull the pedestal away from the base to release and separate them.

5. Place the monitor, pedestal, and base in the original packing box.

Refer to the *HP LCD Monitors Reference Guide* for information on safety and maintenance guidelines.

2 Setting Up the Monitor

Unpacking the Monitor

1. Unpack the monitor. Make sure all contents are included. Store the packing box.

2. Turn off the computer and other attached devices.

3. Prepare a flat area to assemble the monitor. You may need a flat, soft, protected area for placing the monitor screen-down while preparing it for installation.

Assembling the Monitor

Place the monitor in a convenient, well-ventilated location near your computer. Connect the monitor cables after you have assembled the monitor.

⚠ **CAUTION:** The screen is fragile. Avoid touching or applying pressure to the LCD screen; doing so can cause damage.

☼ **TIP:** For monitor displays with glossy bezels, consider the placement of the display, because the bezel might cause interfering reflections from surrounding light and bright surfaces.

1. Set the monitor panel down on a flat, soft, protected table or desk surface.

2. Slide the pedestal into the slot on the base until the pedestal clicks into the base.

Figure 2-1 Assembling the Base and Pedestal

3. Slide the hinge bracket on the monitor into the opening on top of the pedestal. The panel will click into place when fully inserted.

Figure 2-2 Inserting the Monitor Panel

Connecting Monitor Cables

⚠ **CAUTION:** Before connecting cables to the monitor, ensure that the computer and monitor are powered off.

📝 **NOTE:** When using a DVI, VGA, or HDMI signal, you must connect your audio output to external speakers.

The video source is determined by the video cable used. The monitor will automatically determine which inputs have valid video signals. The inputs can be selected by pressing the source button on the front panel.

Connecting the VGA Video Cable

Connect one end of the VGA video cable to the back of the monitor and the other end to the VGA video connector on the computer. The VGA cable is included.

Figure 2-3 Connecting the VGA Cable (cable provided)
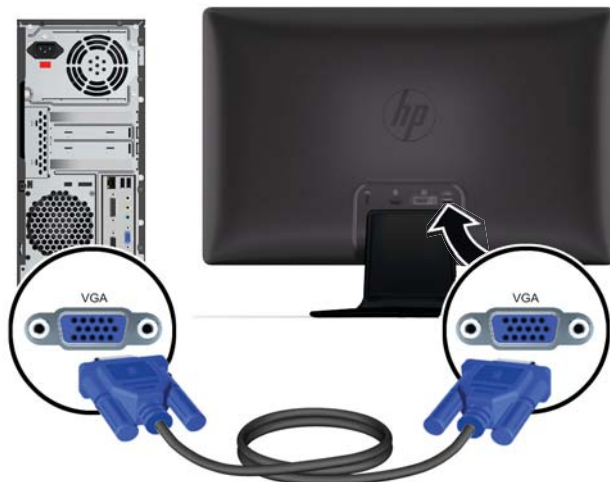
Connecting the DVI-D Video Cable

Connect one end of the DVI-D video cable to the back of the monitor and the other end to the DVI-D video connector on the computer. You can use this cable only if your computer has a DVI compliant graphics card that is either integrated or installed. The DVI-D cable is included.

Figure 2-4 Connecting the DVI-D Cable (cable provided)

Connecting the HDMI Cable

Connect one end of the HDMI cable to the back of the monitor and the other end connector to the input device. The HDMI cable is not included.

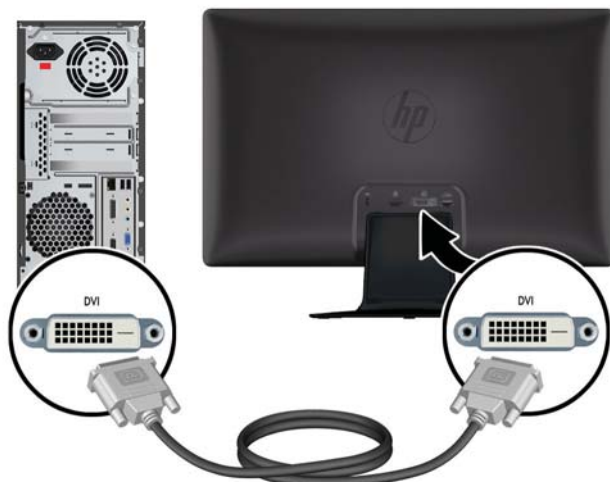**NOTE:** The audio stream must be connected directly to external speakers or to an audio receiver.

Figure 2-5 Connecting the HDMI Cable (cable not provided)
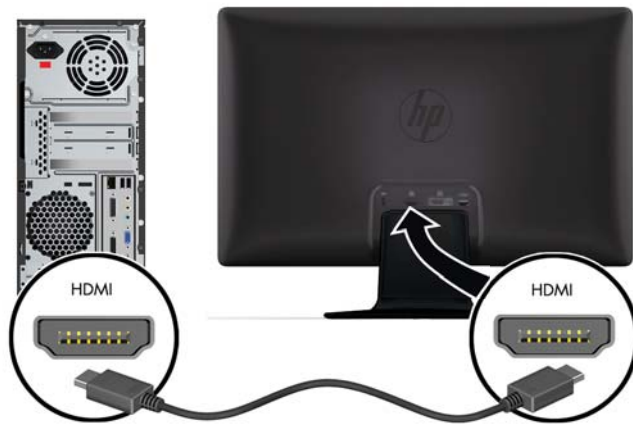
Getting HDMI Sound

If you use HDMI to connect to a monitor model without speakers, you must activate HDMI sound by adjusting the setting in Microsoft Windows. If HDMI is not activated, you can not hear any sound. To activate HDMI sound on your computer:

1. Right-click on the volume icon in the Windows system tray.

2. Click **Playback Devices**. The sound window opens.

3. On the Playback tab, click the HDMI output audio device that is listed.

4. Click **Set Default**.

5. Click **Apply**.

6. Click **OK** to close the window.

Connecting the Power Cord

1. Follow all electrical and power warnings

   ⚠ **WARNING!**   To reduce the risk of electric shock or damage to your equipment:

   Do not disable the power-cord grounding plug. The grounding plug is an important safety feature. Plug the power cord into a grounded (earthed) electrical outlet.

   Be sure that the grounded power outlet you plug the power cord into is easily accessible to the operator and located as close to the equipment as possible. A power cord should be routed so that it is not likely to be walked on or pinched by items that are placed on it or against it.

   Do not place anything on power cords or cables. Arrange them so that no one might accidentally step on or trip over them. Do not pull on a cord or cable.

   See Technical Specifications on page 13 for additional information.

2. Connect the round end of the power supply cord to the monitor, and then connect one end of the power cord to the power supply and the other end to a grounded electrical outlet.

   ⚠ **WARNING!**   To prevent injury from electrical shock, you should do one of the following if a properly grounded electrical outlet is not available: (1) You should use an electrical outlet adapter that provides proper grounding. (2) You should have a properly grounded electrical outlet installed.

   Figure 2-6 Connecting the Power Cord

Installing the Cable Management Clip

Install the cable management clip over the input cable and power cord to gather them together behind the monitor.

Figure 2-7 Installing the Cable management Clip

High-Bandwidth Digital Content Protection (HDCP) select models

Your monitor supports HDCP and can receive high-definition content. High-definition content is available in many sources, such as Blu-ray disc devices or HDTV air or cable broadcasts. If you do not have an HDCP-enabled monitor, you will see a blank screen or a lower resolution picture when playing high-definition protected content. Your computer graphics card and monitor must both support HDCP to display protected content.

Front-Panel Controls

Control buttons (represented by icons) are located on the bottom right of the monitor.

Button	Icon	Description
Quick View		Opens the OSD Quick View menu where you can select a viewing mode which compliments or optimizes the content you are viewing.
Minus	▬	Navigates down through the OSD menu and decreases adjustment levels.
Source		Chooses the video input source from the computer.
Plus	✚	Navigates up through the OSD menu and increases adjustment levels.
Auto Adjustment		Press to automatically adjust the screen image. **NOTE:** This item can only be used with a VGA input signal.
OK	OK	Enters the selected option in the OSD.
Menu		Opens, selects, or exits the OSD menu. **NOTE:** Pressing the Menu button for 10 seconds will disable operation of the remaining OSD buttons. Pressing it again for 10 seconds will re-enable functionality.
Power	⏻	Turns the monitor on or off. The Power button is located on the bottom-right of the monitor. **NOTE:** Pressing the Power button for 10 seconds will disable operation of the Power button. Pressing it again for 10 seconds will re-enable functionality.

NOTE: To view an OSD menu simulator, visit the HP Customer Self Repair Services Media Library at http://www.hp.com/go/sml.

Turning on the Monitor

1. Press the power button on the front of the monitor to turn it on.

2. Press the power button on the computer to turn it on.

CAUTION: Burn-in image damage might occur on monitors that display the same static image on screen for a prolonged period of time.* To avoid burn-in image damage on the monitor screen, you should always activate a screen saver application or turn off the monitor when it is not in use for a prolonged period of time. Image retention is a condition that might occur on all LCD screens. Monitors with a "burned-in image" are not covered under HP warranty.

* A prolonged period of time is 12 consecutive hours of non-use.

When the monitor is powered on, a Monitor Status message is displayed for five seconds and the power source LED on the rear of the monitor is green. The message shows which input is the current active signal, the status of the auto-switch source setting (On or Off), the default source signal, the current preset display resolution, and the recommended preset display resolution.

HP Watermark and Image Retention Policy

The HP L2314 IPS monitor is designed with IPS (In-Plane Switching) display technology which provides ultra-wide viewing angles and advanced image quality. IPS monitors are suitable for a wide variety of advanced image quality applications. This panel technology, however, is not suitable for applications that exhibit static, stationary or fixed images for long periods of time without the use of screen savers. These types of applications may include camera surveillance, video games, marketing logos, and templates that are displayed on the screen for a prolonged period of time. Static images may cause image retention damage that could look like stains or watermarks on the monitor's screen.

Monitors in use for 24 hours per day that result in image retention damage are not covered under the HP warranty. To avoid image retention damage, always turn off the monitor when it is not in use or use the power management setting, if supported on your system, to turn off the display when the system is idle.

Selecting Video Input Connectors

The input connectors are:

- VGA (analog)

- DVI-D connector (digital)

- HDMI connector (digital)

The monitor automatically scans the signal inputs for an active input and uses that input for the display. If two inputs are active, the monitor will display the default input source. If the default source is not an active input, then the monitor will display the other input if it is active. You can change the default source in the OSD by pressing the front-panel Menu button and selecting **Source Control** > **Default Source**.

Adjusting The Tilt

For optimal viewing, adjust the screen tilt to your own preference, as follows:

⚠ **CAUTION:** To avoid breakage or other damage, avoid applying pressure to the LCD screen while changing the tilt.

1. Face the front of the monitor and hold the base so that you do not topple the monitor while changing the tilt.

2. Adjust the tilt by moving the top edge of the monitor either toward or away from you, without touching the screen.

   Figure 2-8 Tilt Adjustment

3 Finding More Information

Reference Guide

Refer to the *HP LCD Monitors Reference Guide* included on the CD with your monitor for additional information on:

- Optimizing monitor performance

- Safety and maintenance guidelines

- Installing software from the CD

- Using the OSD menu

- Downloading software from the Web

- Agency and regulatory notices

- Troubleshooting and recommended solutions to common problems

For additional information on using and adjusting your monitor, go to http://www.hp.com/support. Select your country or region, select Product Support & Troubleshooting, and then enter your monitor model in the SEARCH window.

Product Support

NOTE: The monitor user guide, reference guide, and drivers are available at http://www.hp.com/support.

If the information provided in the guide or in the *HP LCD Monitors Reference Guide* do not address your questions, you can contact support. For U.S. support, go to http://www.hp.com/go/contactHP.

For worldwide support, go to http://welcome.hp.com/country/us/en/wwcontact_us.html. Here you can:

- Chat online with an HP technician

  NOTE: When support chat is not available in a particular language, it is available in English.

- E-mail support

- Find support telephone numbers

- Locate an HP service center

4 Technical Specifications

All specifications represent the typical specifications provided by HP component manufacturers; performance might vary either higher or lower.

HP L2314 IPS Monitors

Table 4-1 L2314 Specifications

Specifications	
Input Terminals:	VGA, DVI, and HDMI
Maximum Weight (unpacked):	4.5 kg (9.9 lb)
Dimensions (w x d x h):	558.0 x 158.9 x 417.10 mm (21.97 x 6.26 x 16.42 in)
Maximum Graphics Resolution:	1920 x 1080 @ 60 Hz
Optimum Graphics Resolution:	1920 x 1080 @ 60 Hz
Power Source (adapter):	100-240 VAC (ca), 50/60 Hz
Power Source (monitor):	12V dc, 50/60 Hz

Preset Video Modes

The monitor automatically recognizes many preset video input modes that will appear properly sized and centered on the screen.

Table 4-2 L2314 Factory Preset Video Input Modes

Preset	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
1	640 x 480	31.469	59.94
2	720 x 400	31.469	70.087
3	800 x 600	37.879	60.317
4	1024 x 768	48.363	60.004
5	1280 x 720	45.00	60.00
6	1280 x 1024	63.98	60.02
7	1440 x 900	55.94	59.89
8	1680 x 1050	65.29	60.00
9	1920 x 1080	67.50	60.00

Table 4-3 HDMI High Definition Factory Preset Video Modes

Preset	HD Video Display Resolution	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
1	480p	720 x 480	31.469	60
2	720p60	1280 x 720	45	60
3	576p	720 x 576	31.25	50
4	720p50	1280 x 720	37.5	50
5	1080p60	1920 x 1080	67.5	60
6	1080p50	1920 x 1080	56.25	50

Entering User Modes

The video controller signal might occasionally call for a mode that is not preset if:

● You are not using a standard graphics adapter.

● You are not using a factory preset mode.

It this occurs, you might need to readjust the parameters of the monitor screen by using the on-screen display. Your changes can be made to any or all of these factory preset modes and saved in memory. The monitor automatically stores the new setting, then recognizes the new mode just like it does a factory preset mode. Also there are at least ten user modes that can be entered and stored.

Power Adapters

Table 4-4 Power Adapters

Manufacturer	Model Number
LiteOn	PA-1041-03TA-LF, PA-1041–0
Delta	ADP-40DD B Series

Power-Saver Feature

When the monitor is in normal operating mode, the Power light is Aqua white and the monitor uses the normal watts of power.

The monitor also supports a power-saver mode that is controlled by the computer. When the monitor is in the reduced-power state, the monitor screen is blank, the backlight is off, the Power light is amber, and the monitor uses minimum power. When the monitor is "awakened," a brief warm-up period occurs before the monitor returns to normal operating mode. The energy-saving reduced power state activates if the monitor does not detect either the horizontal sync signal or the vertical sync signal. The power-saver feature must be activated on your computer for this feature to work.

Refer to your computer documentation for instructions on setting energy-saver features (sometimes called power-management features).

NOTE: The energy-saver feature works only when the monitor is connected to computers that have energy-saver features.

LCD Monitor Quality and Pixel Policy

Your LCD monitor uses high-precision technology, manufactured according to high standards, to help guarantee trouble-free performance. Nevertheless, the display might have cosmetic imperfections that appear as small bright or dark spots. This is common to all LCD monitor displays used in products supplied by all vendors and is not specific to your LCD monitor. These imperfections are caused by one or more defective pixels or subpixels.

A pixel consists of one red, one green, and one blue subpixel. A defective whole pixel is always turned on (a bright spot on a dark background), or it is always off (a dark spot on a bright background). The first is the more visible of the two. A defective subpixel (dot defect) is less visible than a defective whole pixel, and is small and only visible on a specific background.

To locate defective pixels, the monitor should be viewed under normal operating conditions and in normal operating mode at a supported resolution and refresh rate, from a distance of approximately 50 cm (16 in). We expect that, over time, the industry will continue to improve its ability to produce displays with fewer cosmetic imperfections, and we will adjust guidelines as improvements are made.

For more information about your LCD monitor and pixel policy, refer to the HP Web site at: www.hp.com/support. To find pixel policy information on the HP Web site, type in "HP Pixel Policy" in the search box and press Enter.